UNIVERSITY OF PENNSYLVANIA

A STUDY OF BEHAVIOR PROBLEMS

GEORGIANA S. MENDENHALL

A THESIS

IN PSYCHOLOGY

PRESENTED TO THE FACULTY OF THE GRADUATE SCHOOL IN
PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR
THE DEGREE OF DOCTOR OF PHILOSOPHY

PHILADELPHIA
1932

A STUDY OF BEHAVIOR PROBLEMS

A THESIS

IN PSYCHOLOGY

PRESENTED TO THE FACULTY OF THE GRADUATE SCHOOL OF THE
UNIVERSITY OF PENNSYLVANIA IN PARTIAL FULFILLMENT
OF THE REQUIREMENTS FOR THE DEGREE
OF DOCTOR OF PHILOSOPHY

GEORGIANA S. MENDENHALL

Reprint from
The Psychological Clinic, Vol. XXI, No. 2

PHILADELPHIA
1932

R. UNIV.
BIBLIOTHEEK
LEIDEN

A STUDY OF BEHAVIOR PROBLEMS

By Georgiana S. Mendenhall

Introduction

In the summer of 1929 a study of five hundred children in the public schools who presented behavior problems was begun. The group was composed of children who because of their unconformed behavior in the class room were referred for a psychological examination under the supervision of the Department of Special Education. These examinations were conducted with a view toward possible placement in a Special Class. Through the courtesy of the Director of Special Education access to the files of the Department was made possible.

The original intention was to have an equal number of boys and girls, but the records showed that a very much larger number of boys than of girls had been examined by the Department because of disciplinary problems. As a consequence the group considered in the present investigation includes four hundred boys and one hundred girls. The group is representative as the boys and girls comprising it were selected from every part of a large school system. In chronological age the children ranged from seven to seventeen years.

The results of a mental examination and a clinical diagnosis were obtained for each child under discussion. This examination included first the starred tests of the Stanford Revision of the Binet Simon Intelligence Scale. Memory span tests employed included the audito-vocal forward, referred to hereafter as the auditory; the visual-vocal, referred to as the visual; and the audito-vocal reverse, referred to as the reverse. Three performance tests were used: the Witmer Formboard, the Healy Construction Test A, the Dearborn Formboard No. 1c. These tests afford an opportunity to observe the individual while he is solving a concrete problem. The subject's output is judged in terms of analytic discrimination, comprehension of the problem, learning ability (trainability, educability, and organizability), distribution of attention, and planfulness. School proficiency was measured by means of tests based on the City Courses of Study in reading, arithmetic, spelling, geography, and

history. The child's own story was gathered in, bit by bit, as he chose to tell it. Much light was thrown upon the home conditions, the immediate environment, the child's friends, pastimes, likes and dislikes. Verification of the story was made in the school office by the Attendance Officer and Social Worker.

The study as it finally developed can be divided into three parts: first, a general analysis of the group considering such factors as sex differences, racial composition, age and grade at which disciplinary problems develop, causes of disciplinary problems; second, the mental status of the disciplinary group; third, illustrative case studies.

General Analysis of the Group

The educational procedure in special classes is different from the procedure in the regular grades. The pressure of academic standards is not so great, therefore the teacher has an opportunity to discover the cause of non-conformed behavior and frequently to effect adjustment. Two important types of Special Classes conducted by the Department of Special Education are the Orthogenic Backward, and the Orthogenic Disciplinary. To the Orthogenic Backward Classes are referred children who are so deficient in the abilities of a more intellectual nature required for school work that they are unable to profit by the instruction given in the regular classroom. To the Orthogenic Disciplinary Classes are referred children whose maladjustment in school is supposed to involve, as the name implies, failure to conform to discipline rather than intellectual deficiency. Boys who have gone out from special classes upon their return as visitors impress upon us their intellectual superiority, "I was not O. B., you know, I was O. D. I was not dumb, I was bad." The records of several of these boys were consulted, only to find that they had been O. B. after all. Society had apparently taught them that it was worse to be "dumb" than bad.

Sex Differences

It has already been noted that boys greatly outnumber girls among children examined because of disciplinary problems. What is the cause of this difference? The accusations against the boys represent violations of school discipline, conflict with authority, maladjustment to school work. Wickman (13) states that boys are considered to be notoriously more difficult to manage than girls, with the result that incidence of reported problems among them is

greater than among girls, for example, ten problems per boy and only six per girl. Boys are more aggressive than girls and thus increase their chances of annoying the adult. Evidently teachers' ideals of desirable behavior tend toward the distinguishing characteristics of girls who are generally conceded to be more docile, compliant, "withdrawing," less active. Boys are aggressive, antagonistic, and attacking. Discipline case reports show the boys to be "truant," "defiant," "disobedient," "impudent," "won't work and won't let others work," "struck teacher," "threw book at teacher," "constantly disrupting class," "uses profane and obscene language." Similar records for girls read "hard," "tough," "incorrigible," "menace to other children," "insidious moral influence," "flippant."

In disciplinary groups, however, the behavior of both boys and girls is described as aggressive. It is interesting to note that Table II shows a higher percentage of girls than of boys becoming disciplinary problems in the first three grades, due probably to the fact that girls are generally so docile at these earlier ages that any non-conformity is cited immediately. For girls the notations "tough," "hard," "incorrigible" carry an implication of sex delinquencies which constitute a more serious problem with girls than with boys. Of the girls studied, 70 per cent had a history involving sex problems, whereas only 16.5 per cent of the boys had histories showing sex experiences incidental to their other delinquencies. There are few children who have not acquired sex information and definite attitudes toward sex, and there are many more who have had a surprising amount and variety of sex experiences. Playing "hookey" or some other overt act carries in its wake an uncovering of all one's other delinquencies. In the case of girls, however, sex delinquencies are more frequently the primary factor in the disciplinary problem. Frequently girls who are very non-conformed and frustrating, but who are guilty of no sex delinquencies are placed in "Backward" classes with the hope that in such classes the difficulties will "clear up."

Racial Composition

An analysis of the racial backgrounds of our cases reveals the following facts. (1) Of the boys 83.5 per cent were white and 16.5 per cent were colored; of the girls 75 per cent were white and 25 per cent were colored. (2) Of the entire group of boys (including

colored) 65 per cent were what Jones (7) calls "Mixed Americans," that is, both their parents were born in this country, and 35 per cent had parents one or both of whom were of foreign birth; of the girls 71 per cent were "Mixed Americans," and 29 per cent had one or both parents born in a foreign country.

Age and Grade at Which Disciplinary Problems Develop

Table I shows the distribution of ages at which the children in the group become disciplinary problems. The mode for boys is 14 years although there is little difference between 13 and 14, and for

TABLE I

AGES AT WHICH CHILDREN BECOME DISCIPLINARY PROBLEMS

Age	No. of Boys	No. of Girls	Total
7	1	1	2
8	2	0	2
9	13	5	18
10	28	9	37
11	33	6	39
12	64	14	78
13	87	11	98
14	88	14	102
15	73	35	108
16	11	4	15
17	—	1	1
Total	400	100	500

girls it is definitely 15. It is interesting to note that the increase to 15 years is relatively steady with a decline after 15. The median for the age at which disciplinary problems develop is 13 years and 8 months for boys, 14 years and 3 months for girls. The results with reference to age distribution point very definitely to the pre-adolescent and the adolescent periods of life for consideration of behavior problems. This factor will be discussed further in the following section.

Table II indicates the number of children becoming disciplinary in each school grade. The mode for boys is the 5th grade, although the number of cases in the 4th grade is very nearly as large. In the case of the girls the 6th grade is the mode, although there is very little difference among the 4th, 5th, 6th and 7th grades. The 5th grade is the median for both boys and girls.

TABLE II

SCHOOL GRADE AT WHICH CHILDREN BECOME DISCIPLINARY PROBLEMS

Grade	Boys	Girls	Total
1	12	4	16
2	14	7	21
3	52	12	64
4	100	17	117
5	107	15	122
6	69	20	89
7	34	15	49
8	9	8	17
9	3	2	5
Total	400	100	500

School Retardation

Table III shows the amount of retardation and acceleration in three academic subjects. The results of the tests of school proficiency proved arithmetic to be the most difficult subject for this group. These children can acquire the four fundamental processes of arithmetic in a mechanical fashion, but the ability to apply these

TABLE III

PERCENTAGE OF GROUP RETARDED OR ACCELERATED IN GRADE ATTAINMENT

	Arithmetic		Reading		Spelling	
	Boys	Girls	Boys	Girls	Boys	Girls
Grades Retarded						
5	0.75	—	0.25	—	1.00	—
4	1.75	3.00	1.25	1.00	0.75	2.00
3	7.00	11.00	2.75	8.00	5.50	12.00
2	21.50	27.00	12.75	17.00	14.00	14.00
1	34.50	38.00	32.25	39.00	33.75	38.00
0	32.25	21.00	57.00	31.00	42.75	31.00
Grades Accelerated						
1	2.00	—	3.75	4.00	2.00	3.00
2	0.25	—	—	—	0.25	—

processes to mathematical abstraction and to problem solving is decidedly limited. Spelling is shown to be slightly more difficult than reading. Except in reading among the boys more than fifty per cent of the cases were in actual proficiency from one to five grades below the average of the grades in which they were located at the time they became disciplinary problems. In all subjects sixty-five per cent of the girls were below the average of their school

grade. In no case was there acceleration of more than two grades. The girls appear to be inferior to the boys in school achievement, but both groups are seriously retarded.

In seeking a cause for this school retardation we need go no further than the data to be presented later in the discussion of the mental status of the disciplinary group. The results of the Binet Simon test, interpreted in terms of Terman's classification, show that 13 per cent of the boys and 18 per cent of the girls fall in the definitely feebleminded group, and that 24 per cent of the boys and 31 per cent of the girls are of borderline intelligence.

The coefficient of correlation between age and school grade for this group is less than is usually found in an unselected group. The coefficient between the two factors is $.54 \pm .02$ for the boys, and $.70 \pm .03$ for the girls. An examination of the probable errors and the probable error of the difference of the two r's shows that there is a greater degree of relation between the two factors in the case of the girls than in the case of the boys.

The coefficient of correlation between grade and I.Q. is $.27 \pm .03$ for the boys, and $.18 \pm .06$ for the girls. While the regression is non-linear there is a slight degree of relationship for boys, but no such relationship for girls.

It is difficult to determine whether school retardation is a result or a cause of unconformed behavior. However, when we consider the low mental status of our group it seems reasonable to suppose that much of the school retardation discovered is due to a lack of ability, and consequently that the school failure incident to this lack of ability is a cause of the behavior problem in some cases at least.

Causative Factors

The data on the age at which these children become disciplinary problems have indicated already the influence of adolescence. No fixed date can be given for the beginning of the adolescent period; it varies with the individual and is dependent upon hereditary and environmental influences. Crampton (4) in his study of 4800 boys found that 13 years, 9 months to 14 years, 3 months was the most important period. Bird T. Baldwin (2) in a study of 1200 girls found the period from 12 years, 9 months to 13 years, 6 months to be the most important one. The present study shows 65 per cent of the boys and 70 per cent of the girls to be between the ages of 13 and 16 years.

Jane Addams (1) states that from two to three times as much incorrigibility occurs between the ages of 13 and 16 years as at any other period of life. There is an insistent demand for excitement and adventure, both at the later pre-adolescent and the earlier adolescent ages. William Bolitho (3) says that, despite the opinion of good adults, almost all children prefer the Chicago slums to any gravelled play yards. It is the hackneyed fable of the lap-dog and the mongrel. 'Round the Loop is mystery—shadows and smells—ashpans—cats prowling—the eternally interesting traffic stream. Near the stockyards, the grass stands high in waste plots, concealing many a tempting horde of iron and tin.

Case studies report, for boys and girls, the following: Stays out all night; slept under a porch; slept in freight cars; neighborhood nuisance; bunks in the woods; truant; runs away; collects and sells junk; smashes milk bottles; upsets baskets of fruit, in order to steal; all kinds of petty thievery. Three boys whose I.Q.'s were 78 (C.A. 12 years), 89 (C.A. 13 years) and 90 (C.A. 13 years) one day slipped out of school and stole a baked ham, one dozen eggs, one-half pound of butter, and a pineapple from an apartment adjoining the school. They took themselves off to a bunk and had a glorious repast. Not one of them needed the food, and not one regretted the episode, though the parental punishment was severe. How was the affair discovered? One of the gang who had missed connections with them "squealed."

Of the boys' group, 24 per cent are recorded as belonging to gangs which were reported as "bad," "destructive of property," "stealing automobiles, and dismantling them," "looting empty houses," and what not,—"loafing on street corners and annoying girls," "drunken parties with girls present."

The adolescent type of girl, such as this study represents, is a serious problem. We find her described as "hard as nails," "violent tempered," "hyperexcitable," "stayed out until three A.M.," "has boy friend," "frequents dance halls, boat houses," "ran away with men." Sex is the dominant factor in her delinquencies as we have already pointed out.

Pearson (11) questions whether the physiological changes accompanying puberty are in themselves responsible for the instability manifested, and cites Mead's (10) study of primitive races to show that where sexuality is accepted in a matter of fact way, the physiological changes of puberty do not seem to be accompanied by the instability of the adolescent, for such instability is not found

in primitive girls. He asks whether the emphasis laid on the relation between sexual development and adolescent difficulties is not partly an attempt on the part of parents and teachers to shift responsibilities to the shoulders of the children, and partly the outgrowth of our own feelings about sex.

"Bad homes" indicates no control—father and mother separated —constant quarreling—divided authority—very poor—no mother —father drinks—both parents work—no supervision—illiterate— father drinks, abuses mother and children—fanatical—no English —good but unwise—erratic—both parents out of work—father at home, mother works. One need only think of the types of behavior response, the emotional conflicts, that are likely to come out of such environments. In many cases bad homes themselves are but symptomatic of serious mental ills. In our group at least 64 per cent of boys and 58 per cent of girls came from what are described as bad homes.

The percentage of troubles arising from the colored group is comparatively low, 16 per cent, but it represents the feelings of inferiority and the paranoiac trends that arise within a group that is struggling to economic, intellectual and social equality. The foreign group, 35 per cent of the entire group of boys, and 29 per cent of the girls, represents homes where the parents are too busy earning their living to give any supervision to the children; furthermore they can not or do not learn to speak English. The children in time become ashamed of the parents, and some of them quite openly. A little Italian boy had been pressed to bring his mother to school to discuss some minor delinquency. His quick response was, "She don't know nothin'—she don't speaks no English." The mother of another boy was declared by him to be a chronic invalid because the child was unwilling that the teacher should see his mother with her head done up in a shawl and all her old-fashioned clothes.

Truancy ranks high as a causative factor in school retardation and also very high as a contributing factor to other forms of delinquencies and misbehavior. Considerable property has been destroyed and much petty stealing has been carried on while children have truanted. Truancy is generally recognized to be more of a boys' than a girls' problem as 72 per cent of boys, as against 35 per cent of girls in our group will substantiate. The consensus of opinion is that the causes of truancy are very complex and difficult

to get at; judging from the high percentage of bad homes, it looks as if it were safe to conclude that they are an important factor.

Personality difficulties stand very high as contributing factors to disciplinary problems. About 61 per cent of the children under study were judged by the psychological examiners to be egocentric, hyper-excitable, emotionally unstable, infantile and inadequate, paranoiac, psychopathic, or manifested feelings of inferiority and superiority. These types of behavior are not mutually exclusive. A very small number of cases presented serious behavior disorders that were referable to encephalitis.

Mental Status of the Disciplinary Group

It will be remembered that we have said an attempt is made to distinguish between children who are merely backward and those whose maladjustment is complicated by disciplinary difficulties. It is often thought that the disciplinary group includes children from all levels of intelligence, the bright along with the dull. The mental status of these five hundred children thus becomes an important problem.

Intelligence Quotient

The group has a wide range in chronological age which makes it much easier to use the Intelligence Quotient in determining the

Table IV
Distribution of I.Q.'s

I.Q.	Boys	Girls	Total
35–39	0	1	1
40–44	0	0	0
45–49	0	0	0
50–54	1	2	3
55–59	6	2	8
60–64	12	5	17
65–69	33	8	41
70–74	49	15	64
75–79	47	16	63
80–84	60	8	68
85–89	55	10	65
90–94	47	16	63
95–99	26	8	34
100–104	28	2	30
105–109	16	5	21
110–114	9	2	11
115–119	7	0	7
120–124	2	0	2
125–129	2	0	2
	400	100	500

TABLE V

PERCENTILES I.Q.

Percentiles	I.Q. less than Boys	Girls
10	65.7	62.5
20	69.3	68.1
30	74.5	71.5
40	78.5	74.7
50	81.8	78.1
60	85.4	84.0
70	89.3	88.4
80	94.3	81.6
90	101.8	96.9
100	127.5	112.5

mental status of the group than some other measure which is not equated for age. The distribution of Intelligence Quotients is given in Table IV, and the percentiles in Table V. It will be seen first that generally speaking all levels of intelligence as measured by this test are included in the disciplinary group. The range is from 52 to 127 for the boys and from 35 to 112 for the girls. The distribution, however, is by no means that of an unselected group. The median I.Q. is 81.8 for boys and 78.1 for girls. There is very little difference between boys and girls except in the upper range of the distribution. The results indicate very definitely that the disciplinary group is inferior to an unselected group of regular grade children. Approximately ninety per cent of our group are inferior to the median of an unselected group, that is, have Intelligence Quotients less than 100.

According to Terman's classification on the basis of Intelligence Quotient the disciplinary cases would fall into the following groups:

	Feebleminded	Borderline	Dull	Normal	Superior	Very Superior
Per cent of boys	13	24	29	29	4	1
Per cent of girls	18	31	18	33		

It is not our belief on the basis of a study of these cases that the foregoing classification can be applied unqualifiedly. The ultimate criterion of normality is a social one, and while many of these cases never make a successful social adjustment the failure can not be attributed solely to lack of intelligence. Nevertheless these results point to a marked deficiency in our group.

Memory Span

Auditory. The results for the auditory memory span test will be found in Table VI. In comparing the results for this disciplinary group with the memory span of a normal group of children we may use the standards of Humpstone as well as the standards in the

TABLE VI

AUDITORY MEMORY SPAN

Per cent of each group having auditory memory span less than or equal to the given memory span

Age	Sex	No. of cases	3	4	5	6	7	8	9	10
7	B	1	—	—	—	100				
	G	1	—	100						
8	B	2	—	50	100					
	G	0	—	—	—					
9	B	13	—	8	69	100				
	G	5	—	—	40	80	100			
10	B	28	25	61	82	93	100			
	G	9	—	—	44	100				
11	B	33	—	22	64	91	100			
	G	6	—	17	67	100				
12	B	64	1	12	48	84	95	100		
	G	14	—	21	57	93	100			
13	B	87	—	10	48	86	95	100		
	G	11	9	18	55	73	100			
14	B	88	—	1	31	79	92	99	100	
	G	14	—	—	43	79	93	100		
15	B	73	—	7	38	76	92	99	100	
	G	35	—	3	43	83	94	100		
16	B	11	—	—	36	82	91	91	100	
	G	4	—	—	25	75	100			
17	B	0								
	G	1	—	—	100					

Boys 400
Girls 100

individual tests of the Binet-Simon Scale, and also the Witmer Diagnostic Standards at different age levels. In the disciplinary group there are only two children 7 years of age and only two 8 years of age; the numbers here are not sufficient to make any comparison valid. At 9 years of age the median memory span according to the Humpstone standards is 5. In the disciplinary group only 8 per cent of the boys and none of the girls show a memory span of less than 5. At 10 years of age the Humpstone median is 6, the Binet-Simon standard is 6, and the median on the Witmer Diagnostic Standards is also 6; 82 per cent of the disciplinary boys and 44 per cent of the disciplinary girls have less than this median. At 11 and 12 years of age we use the Humpstone standards; the median is 6.

In the disciplinary group at 11 years 64 per cent of the boys have less than the median, and 67 per cent of the girls; at 12 years, 48 per cent of the boys and 57 per cent of the girls. At 13 years Humpstone has a median of 7 for boys and 6 for girls. A memory span of 7 is not demanded in the Binet-Simon Scale until 14 years of age. In our group 48 per cent of the 13 year old boys and 55 per cent of the girls have less than 6. At 14 years the median memory span, according to the Binet-Simon Scale, is 7; Humpstone finds 7 for boys and 6 for girls. Of our disciplinary group, 79 per cent have a memory span less than 7. Taking 7 as the standard for higher ages we find that at least 75 per cent of the 15 and 16 year old disciplinary children have memory spans below the median. It appears from these results that the younger children in the disciplinary group do not have a median memory span significantly below the median for the normal group. At the higher levels, however, the disciplinary group tends to be inferior.

Visual. In the visual memory span the standards for comparison are not as complete as is the case with the auditory memory span since this is a less widely used test. The results for the disciplinary group will be found in Table VII. A general comparison

TABLE VII

VISUAL MEMORY SPAN

Per cent of each group having visual memory span less than or equal to given memory span

Age	Sex	No. of cases	3	4	5	6	7	8	9	10
7	B	1	—	—	100					
	G	1	—	—	100					
8	B	2	—	—	50	100				
	G	0	—	—	—					
9	B	13	8	16	46	90	100			
	G	5	—	—	—	40	60	100		
10	B	28	—	4	20	64	89	100		
	G	9	—	—	22	55	100			
11	B	33	—	3	18	73	88	100		
	G	6	—	—	33	66	100			
12	B	64	—	6	17	52	85	91	100	
	G	14	—	—	14	58	79	93	100	
13	B	87	—	1	19	52	82	94	99	100
	G	11	18	18	18	45	72	90	100	
14	B	88	—	—	3	29	72	91	100	
	G	14	—	7	7	28	64	85	100	
15	B	73	—	1	5	28	65	88	99	100
	G	35	—	—	6	32	72	89	97	100
16	B	1	—	—	9	18	64	91	100	
	G	4	—	—	—	25	50	75	100	
17	B	0								
	G	1	—	—	—	100				

Boys 400
Girls 100

shows that the visual memory span of the disciplinary group is slightly below that of the normal group as shown in the Witmer Diagnostic Standards. As is the case with normal children, in the disciplinary group we find that the visual memory span is higher than the auditory from 9 years upwards.

Reverse. (Table VIII.) According to the Binet-Simon Scale

TABLE VIII

REVERSE MEMORY SPAN

Per cent of each group having a Reverse Memory Span less than or equal to given memory span

Age	Sex	No. of cases	0	1	2	3	4	5	6	7
7	B	1	—	—	—	—	100			
	G	1	—	—	100					
8	B	2	—	—	50	100				
	G	0								
9	B	13	15	15	30	90	100			
	G	5	—	—	—	40	100			
10	B	28	—	—	11	65	89	100		
	G	9	—	—	22	56	100			
11	B	33	—	—	12	73	94	100		
	G	6	—	—	17	66	83	100		
12	B	64	2	2	7	52	92	98	100	
	G	14	—	—	14	64	100			
13	B	87	—	—	3	99	84	100		
	G	11	10	10	28	55	83	100		
14	B	88	—	—	1	35	75	98	99	100
	G	14	—	—	15	58	79	86	93	100
15	B	73	—	—	3	30	75	93	97	100
	G	35	—	—	3	36	65	94	100	
16	B	11	—	—	—	18	73	91	100	
	G	4	—	—	—	—	75	100		
17	B	0								
	G	1	—	—	—	100				

a 9 year old child should have a reverse memory span of 4. Various studies of the Binet Scale, however, indicate that this is by far the most difficult test at the 9 year level. In the disciplinary group 90 per cent of the boys and 40 per cent of the girls at this age level had a reverse memory span of less than 4. The number of girls at all age levels is very small so that the comparisons are of doubtful value. If we group the 9, 10, and 11 year old children in the disciplinary group, we find that they have a median reverse memory span of 3, which is one less than the median memory span for normal children. If we group those 12, 13, 14, and 15 years of age we find the median memory span and also the mode to be 4. This again is one less than required by the Binet standards. The

16 and 17 year olds also have a median and mode of 4; the normal memory span for this age according to the Binet standards is 6. There is a suggestion in these results that the disciplinary group differs from an unselected group more in reverse memory span than in auditory or visual.

Performance Tests

While time scores were available for the performance tests used in the clinical examinations, they were very difficult to evaluate. It is the qualitative nature of the performance on these tests rather than the quantitative time score which is significant. The clinical examiners in an attempt to analyze the qualitative aspects of the performance of these tests make judgments of the following factors: energy, judgment, distribution of attention, comprehension, learning (trainability and organizability). These are judgment ratings and are not strictly measurable. The ratings were made on a five point scale by trained and experienced examiners. In studying the results the scale has been transcribed in terms of ten points in order to take care of "plus" and "minus" values.

In an attempt to show the relation existing between these factors the ratings were correlated; intercorrelations were determined. These are shown in Table IX. It will be noted that in all cases

TABLE IX

COEFFICIENT OF CORRELATION—QUALITATIVE JUDGMENTS

	Boys		Girls	
Energy—Judgment	.05 ±	.03	.31 ±	.06
Energy—Dist. of Attention	.28 ±	.03*	.35 ±	.06
Energy—Comprehension	.20 ±	.03	.50 ±	.05
Energy—Learning	.17 ±	.03	.47 ±	.05
Comprehension—Judgment	.45 ±	.03	.46 ±	.05
Comprehension—Dist. of Attention	.43 ±	.03	.58 ±	.03
Comprehension—Learning	.53 ±	.02	.70 ±	.03
Judgment—Dist. of Attention	.40 ±	.03*	.65 ±	.03*
Judgment—Learning	.43 ±	.03	.43 ±	.05*
Dist. of Attention—Learning	.48 ±	.03	.52 ±	.05

Note. All of these coefficients have been tested for linearity of regression and except in starred cases the coefficient is a valid measure of the relationship.

except one, the coefficient of correlation for the girls is greater than for the boys, and in the single case (judgment-learning) where the regression is non-linear, they are equal. With the boys the relationships are slight between energy and all other categories. In all other cases there is some degree of relationship. In the case of judgment-learning, while the regression is non-linear an examination of the correlation shows that there is a higher degree of relationship than the "*r*" would indicate.

Illustrative Case Studies *

ADELE—*Manic-Depressive*

Referred from a Vocational School for emotional instability and hyper-excitability. Her home, judging from her description, was about as unstable as Adele herself. The mother wrung her hands and went into hysterics at the slightest provocation. The father was apparently bored to death with the doings of the family and paid little heed to them. Adele came and went as she pleased. She was referred to a psychiatrist for an examination but the family refused to permit it because such clinics were only for insane and totally irresponsible people.

When Adele entered the disciplinary class to which she was sent, she cursed and swore and said she would not remain with such "nuts." Her only response to every request was, "I can't do that —I don't want to, I won't," etc. She would cry and moan, rock back and forth, suddenly throw her arms around your neck and imprint a rosy kiss upon your cheek; just as suddenly the atmosphere was cleared and she was off in peals of laughter. She ignored all the boys in the school, transferring her affections to the University students whom she liked very much better, she said. She told the students that she was a teacher in the school—a teacher of Art, and not a pupil.

We carried her along until she was sixteen, when she vanished for several years. Recently she returned, embraced us in the usual manner and hysterically described her social successes.

C.A. 15–0; M.A. 14–9; I.Q. 98.
Memory Span: Auditory 7, sup. 20—inf. 40.
15 year F: Visual 9, sup. 60—inf. 10.
Reverse 6.
Formboard: (1) 27″; (2) 23″; (3) 24″.
Healy A: (1) 19″; (2) 6″; (3) 21″.
Dearborn: (1) 6′, sup. 10—inf. 80.
(2) 3′ 24″, sup. 10—inf. 80.
School Proficiency: 8th grade.
Prognosis: Doubtful.

* In these case studies the test results are compared where possible with the superiority-inferiority percentages of the Witmer Diagnostic Standards. "Sup. 20—inf. 40" should be read "Superior to 20 per cent and inferior to 40 per cent." The standards used in each case are given in italics: 6 year, Easby Grave (5); 10 year, Murphy (9); 15 year, Leaming (8).

HOWARD—*Emotionally Short—Hyper-Excitable*

Referred as "simply impossible" in classroom; will not work and will not let anyone else work.

Howard's father is at his wits' end to know what to do with him. The father and mother are separated and the boy is forced to live with his father and a woman whom he calls "aunt" when he is forced to, but "her" when he speaks for himself. There is a history of chorea in the family, and deafness. There is absolutely no home control; the boy stays out until late at night and will not answer questions as to his whereabouts. He yells and screams around the house, and steals everything he can get his hands on, according to the father. The boy insists that there is so much quarreling in the home and so much discussion as to where the money is to come from to buy the coal and pay for the electric light that he wishes he could pull out. He would rather eat bread and water in peace in jail than all the good food he gets at home.

Howard was admitted to a disciplinary class from a third grade. There is apparently no approach to him; the teachers have been wonderfully considerate, only to be met with violent abuse. There is a streak of cruelty in the boy. When he was sent to the country in the hope that the farm life would be good for him, he depleted the farm of its poultry by swinging the hatchet on their necks and building fires under the chicken coops. Whenever opportunity affords, he maims or kills. He has been proved to be an inveterate liar.

There is very little hope of improvement in the boy unless he can be separated from the home entirely and placed under firm understanding discipline with no hope of escape. He does not seem to have any feeling for anything or anybody.

C.A. 11–0; M.A. 11–5; I.Q. 109.
Memory Span: Auditory 6, sup. 40—inf. 10.
10 year M: Visual 8, sup. 70—inf. 1.
Reverse 4, sup. 20—inf. 10.
School Proficiency: 3d grade; omnivorous reader.
Prognosis: Bad.

GENEVIEVE—*Feebleminded—Self-supporting*

Referred because of truancy.

Genevieve's mother died when she was only nine years old. Because of very bad home conditions and waywardness, she was

placed by her aunt in an asylum. Here she says she was forced to scrub floors from morning till night. She never had a chance to go to school because they said she "couldn't learn nothing." Her aunt finally took her, at ten years, and Genevieve lived with her father and her aunt until the aunt threw the father out. Then the father was forced to find a new home, and Genevieve had to care for the house and go to school at the same time. The father was a drunkard and very abusive. He assaulted one of the older daughters who ran away. Some time later, the father attempted a similar offense against Genevieve. She "hollered," she said, until the neighbors came to the rescue. Since that time she has guarded a younger sister very carefully against the father's advances and threatens to kill him if he touches her.

Genevieve was a forlorn, scrawny, gaunt, gauche girl, of whom everybody made fun. She certainly was funny-looking, since her clothes were collected from many sources and were of many sizes and hues.

At thirteen, she was still in 3d grade but her school failure and her truancy forced her into a disciplinary class. She fell into the hands of a very understanding teacher who gave her some becoming clothing, good looking shoes, and a becoming bob. This effected quite a transformation in appearance and in attitude. She has become quite discriminating about the quality of her clothes as well as the style. Her one desire then became to please her teacher, who took her into her own home, after school hours and on Saturdays, and there taught her to cook plain simple food, to mend her clothes and to make new ones. She cannot tell the time but has learned that when the clock hands are at such and such a place, it is necessary to put the potatoes on to boil, the meat in the oven, and so on.

At sixteen, Genevieve left school and is now doing domestic work in the home of her teacher. When her father died just recently, she evinced neither interest nor sorrow. With the money she had earned, she rented a room and with the aid of her teacher, has furnished it tastefully. Here she cares for her younger sister now in school and for two younger brothers when they return, at vacation time, from a school where they have been placed temporarily.

Genevieve is on probation to the Court, but the social agencies have been relieved of the need for financial aid. This girl, who might have been a burden on the community, is a self-respecting, happy young woman, not only supporting herself, but three other members of her family. Her friends urge her to go into a factory

where she will have a higher social status. Genevieve wavers, but her feeling of security in her present home has dominated so far.

She has a violent complex against men and says that when a man begins to tell her how nice she looks, she gets scared and tells him to go along. If any man dares to touch her sister, she threatens to tear him to pieces because "they ain't good for nothing nohow."

C.A. 17–2; M.A. 9–0; I.Q. 56.

Memory Span: Auditory 5, inf. 90.

15 year F: Visual 5, inf. 99.

Reverse 3.

Formboard: (1) 45″; (2) 37″.

Healy A: (1) F; (2) 15″; (3) 10″.

Dearborn: (1) F, inf. 90; (2) F, inf. 90; (3) 3′ 10″.

School Proficiency: Inferior 3d grade. Very vague concepts.

Prognosis: Questionable. The question that arises is what she will do if her teacher withdraws her supervision. She has assumed the responsibility of the children and will persist so long as they need her.

FRANCIS—*Inferiority Feelings*

Referred, at thirteen years of age, because of truancy, obscene language, classroom nuisance. Francis was a most ineffectual looking boy, poorly developed physically, lean and lank and quite hollow-chested. His face wore a most unhappy expression, scarcely ever was there a trace of a smile. There was probably good reason for this since home conditions were bad, the father drank very heavily, and beat up the family. The parents finally separated and the children were forced to care for themselves.

Francis was sent to a religious correctional institution for a year, with the hope that his behavior would be improved. Upon his release he was sent to a parochial school. Here he 'sassed' the Sister and beat up a boy. A fight ensued in the classroom and Francis was ejected. He was referred then to a disciplinary class. His behavior was still more uncontrolled. There were violent outbursts of temper and defiance. He said he would rather be in hell than in school. He accused the school of believing everything it heard about him and argued that he was as good as any one. He said his father was a gentleman whether we believed it or not, and that when he got out of school he'd show us what he'd do. At sixteen he left school and became a corner loafer. One night he was picked up trying to rob a store. He resisted the police and was sent up for three years.

C.A. 15 years; M.A. 13–10; I.Q. 90.
Memory Span: Auditory 9, sup. 70—inf. 1.
15 year M: Visual 8, sup. 20—inf. 40.
Reverse 5.
Formboard: (1) 22″; (2) 25″; (3) 17″.
Healy A: (1) 18″; (2) 6″.
Dearborn: (1) 2′ 35″, sup. 30—inf. 60.
(2) 1′ 29″, sup. 30—inf. 60.
School Proficiency: Fair 5th grade.

His learning ability was good; memory spans were all adequate for school progress; speed and accuracy characterized his performances. Discrimination and distribution of attention were good. His defect was one of personality and his behavior probably a defense mechanism. While he seemed to need sympathy and understanding, he resented any apparent display of such attitude. *Prognosis:* Bad. Prison treatment will scarce increase his opinion of himself or give him any additional confidence.

ROBERT—*A Spoiled Child*

Referred at six years by the school, for kicking, scratching and general disobedience.

Robert's home was good, but the control was injudicious. Both parents had been married before, so there were two sets of children, three step-brothers and three step-sisters. Robert was the baby of the family and very much spoiled. There was continuous interference in the discipline. If he was punished by one, he was loved by another. Such a state produced havoc upon the child's disposition. This instability carried over to the classroom and he began to defy everybody and to expect all kinds of consideration. Temper tantrums became common. The family was interviewed and the mother made to realize the need for firm, consistent discipline without any interference whatever.

The boy was an attractive, healthy little fellow, very energetic and restless. He had superior intellectual ability which was not being used to capacity either at home or at school. He has begun to learn early in life that "whom the Lord loveth, he chasteneth."

C.A. 6–9; M.A. 7–9; I.Q. 115.
Memory Span: Auditory 6, sup. 60—inf. 1.
6 year M: Visual 5, sup. 30—inf. 30.
Reverse 4, sup. 90.

Formboard: (1) 54″, sup. 30—inf. 60.
(2) 40″, sup. 30—inf. 60.
(3) 30″.
Healy A: (1) 25″; (2) 10″.
Dearborn: (1) 270″; (2) 290″.
School Proficiency: 1st grade. Recommendation of incidental promotion as boy is not working up to capacity.
Prognosis: Good.

PRINCE—*An Ego-Centric Personality*

Referred at twelve years of age because he was a "smart Aleck" and bullied younger children.

We do not know much about Prince save that ten years ago, when he was only four years old, the family came to America from Russia and that it is still trying to live up to the traditions of the old country. The mother is attempting to force Prince into an orthodoxy that he scorns and resents, largely because his desires and his liberties are curtailed. The family has, however, impressed upon Prince its superiority and has developed in him a very great cock-sureness. He considers himself quite superior and requests frequently to be transferred to a better school, away from "these here dirty kids." When he is met, strolling in the hall or loafing on the playground during classroom periods, the question "Why are you here," elicits the response,—"I didn't like the lesson or the teacher, so I left."

On the playground, if he wants something, he takes it, particularly if the children are smaller than himself. Rarely does he follow a plan outlined for him, because he always knows a better one.

He wants to be a printer and has considerable skill. He is greatly interested in detail, and has a good eye for form. Much of the school printing is turned over to him to do and is well done. His vocabularly is most impressive, although, according to the tests, he has no language complexities. He failed in the fables and could not arrange the jumbled sentences. The tests record him as observant, although judgment is poor. He does not discriminate between the important and the unimportant. He has good mechanical ability, but deficient intellectual ability.

C.A. 14–2; M.A. 10–9; I.Q. 76.
Memory Span: Auditory 6, sup. 1—inf. 70.
15 year M: Visual 7, sup. 1—inf. 70.
Reverse 3.

Formboard: (1) 25″; (2) 18″; (3) 16″.
Healy A: (1) 37″; (2) 5″; (3) 5″.
Dearborn: (1) 1′ 28″, sup. 60—inf. 30; (2) 50″, sup. 60—inf. 30.
School Proficiency: Inferior 4th grade.
Prognosis: Good. Much assurance and pleasing personality.

JAMES—*Alias "Slickem"*

After several years of unsuccessful accomplishment, in the first grade, James was placed in an O.B. class. He was reported as mentally dull but having sufficient ability to be taught the fundamentals. However, he made little school progress. His behavior was so erratic and non-conformed that he was sent to a disciplinary class.

James has been in and out of at least six schools since that time and the report is always the same,—"simply impossible," "a perfect nuisance in the classroom." When it becomes necessary to live with "Slickem" (a name conceded him by his pals), it can be done, if one does not take Slickem seriously. Let him "say his say" and speak his mind. He has no respect for anybody; whatever he thinks, he says. If your dignity suffers, so much the worse for you. Any remonstrance elicits—"I must speak out my mind, mussin' I?"

His tall, thin, lanky, loosely hung together body shambles along into school, regardless of time. It is of no avail to question his tardiness or his irregularity of attendance. He is a happy go-lucky irresponsible colored youth with a peculiar egg-shaped head and mongoloid eyes.

Slickem is not a dependent. He shines shoes on Sundays at the Ferries earning from three to five dollars. He carries out the ashes all winter long and makes considerable income thereby. "When there ain't no ashes, times is hard, an' I don't eats so much."

Accused of stealing money from the Red Cross, he replied—"Don't I roll the bones and pick chickens—why should I steal from the pore?" He has been arrested for stealing copper spouts and for breaking into houses, but "I slick's 'em, I does"—and he does, for he is always released. Just at present, however, he is detained in court on a charge of having stolen more than $300 worth of goods. His naivete and the continuous vaudeville performance have almost disrupted the court. The "seven screws loose" in his head have won for him a parole; since which period, he stole his 'daid' uncle's

shoes. Every time he is alone, his uncle 'hants' him, so he's sticking close to his teachers for a while.

The classroom holds absolutely no interest for Slickem. He will not learn and will not let others do so. He carries on a disjointed conversation with himself all the time. He walks in and out of the classroom at his pleasure, a law unto himself.

His summation of his teachers' worth to society is illuminating and his evaluation of their personalities is reducing. "Poor Feeb" restores their confidence. One cannot drive, but one can jolly Slickem if one has to try to teach him.

C.A. 13–8; M.A. 9–10; I.Q. 72.
Memory Span: Auditory 7, sup. 90—inf. 1.
10 year M: Visual 7, sup. 30—inf. 20.
Reverse 3, sup. 1—inf. 70.
Formboard: (1) 20″; (2) 13″; (3) 12″.
Healy A: (1) 10″; (2) 6″; (3) 7″.
Dearborn: (1) F, inf. 90; (2) 4′ 3″, inf. 90; (3) 2′ 12″.
Prognosis: Probably bad.

MANSE—*Paranoic Personality*

Referred for insolence, refusal to work, and truancy.

The whole family is declared to be "psychopathic." The mother and another brother are always in and out of some hospital. There is always something the matter,—a pain in the head, a pain in the back, or some physical disability. There is much poverty in the home; neither the father nor the mother can hold a job very long. There is always something wrong; the boss demands too much or gives the easiest jobs to the other fellow and doesn't appreciate their value. The family is recorded as religious fanatics.

Manse refuses to do anything he has to do. When rebuked by the teacher, he is insolent and defiant and remarks that nobody can make him do what he doesn't want to do. His pen knife is always at hand and is exhibited frequently. On one occasion he drew it on the teacher. He seems to get great joy in running his finger over the sharp edge of his knife. He assumes a very sullen, insolent, injured air toward everybody. The whole world is against him and he feels there is no chance in this world for a colored person. He is melancholic and introspective. He has some talent for Art but when given a chance for instruction in an art school, he threw it up because he overheard a teacher say, "These youngsters think they know it all." His one desire now is to go to a school of

dramatics. Since the family is poverty stricken, the possibilities are slight, and the gods are against once more. Manse is tall and thin with quite a lithe body. Despite the poverty in the home, he is beautifully dressed. The girls regard him as a "shiek." He is quite supercilious with them, permitting them to admire him at a distance.

Two younger brothers are also in disciplinary classes. They are erratic, nervous, violent tempered and lacking in control. All have sufficient intellectual ability. Dick, another brother in the same school, and just as peculiar, has an I.Q. of 120.

C.A. 12–11; M.A. 13–2; I.Q. 103.
Memory span: Auditory 8, sup. 90.
10 year M: Visual 9, sup. 90.
Reverse 4, sup. 20—inf. 10.
Formboard: (1) 31″; (2) 16″; (3) 15″.
Healy A: (1) 54″; (2) 10″; (3) 9″.
Dearborn: (1) 4′ 21″, sup. 30—inf. 60.
(2) 1′ 55″, sup. 70—inf. 10.
(3) 1′ 27″.
School Proficiency: Good 5th grade.
Prognosis: Questionable.

MARY—*Emotional Conflict: Stealing*

Referred from second grade at twelve years of age because of stealing.

Mary's home was very bad. The house was too small to afford any comfort; everybody was on top of everybody else, and Mary, at twelve had to sleep in bed with a fourteen year old brother and in the same room with two other brothers. The father was dead and the mother took her responsibility of caring for the family very lightly. Mary knew she was "dumb" and her mirror told her she was very ugly—so did the family and some of her friends. She was hyper-sensitive about her looks, and she craved the attention other girls received from the boys, but the boys would have none of her.

Mary was very suggestible. She was told where she could get three dollars and how she would be received as a good sport if she'd deliver the goods. She did—the attention and the praise led her into quite a bit of pilfering until one day she landed eighteen dollars for the gang—receiving five cents as a reward, and a trip to court. Her sad little story interested the court; it was realized

that the persons with whom Mary spends her time will determine her future, and placement will be made on that basis.

C.A. 12–3; M.A. 9–3; I.Q. 75.

Memory Span: Auditory 5, sup. 1—inf. 50.

10 year F: Visual 6, sup. 1—inf. 60.

Reverse 4, sup. 20—inf. 10.

Formboard: (1) 26″; (2) 44″; (3) 16″.

Healy A: (1) 30″; (2) 8″; (3) 7″.

Dearborn: (1) 2′ 10″, sup. 80—inf. 10; (2) 70″, sup. 80—inf. 10; (3) 88″.

School Proficiency: 2d grade.

Prognosis: Poor.

HENRY—*Feelings of Inferiority: Paranoic*

Referred, at fourteen years, for truancy and insolence.

Henry did not live at home. His mother was dead and his father boarded him out and assumed very little responsibility toward him. Had it not been for one of the social agencies, Henry would have been very unhappy. He was sullen and rude. He was in constant conflict in the classroom; he never wanted to do anything that was asked of him; he was always tired—everybody picked on him—"You never see anything anybody does but me." Of course the boys picked on him; he was so big and fat and disagreeable, and also very odorous.

Henry was under hospital care but was most irregular in attendance because he said there was nothing the matter with him so he threw his medicine away. He was constantly changing his home because his guardian, a woman, was always picking on him, and, in his estimate, apparently spent her time in thwarting his desires. The school made it possible for him to get a part time job but he was always losing his job and returning,—it didn't pay enough, or it was too difficult, or "they looked at him funny." At sixteen (the coveted age for all these children, boys and girls), we dismissed him cheerfully for good as we supposed, but in a few months he was back demanding admission to a high school. He had learned the need of superior training. We sent him up for an examination which he failed to pass. "Of course, the examiner had a pick on him"—though he couldn't read 6th grade text well and had but a poor 4th grade proficiency in arithmetic.

C.A. 14–8; M.A. 14–0; I.Q. 95.

Memory Span: Auditory 7, sup. 20—inf. 50.

15 year M: Visual 8, sup. 20—inf. 40.
Reverse 5.
Formboard: (1) 40″; (2) 20″; (3) 13″.
Healy A: (1) 1′ 25″; (2) 8″.
Dearborn: (1) 3′ 55″, sup. 10—inf. 70.
(2) 2′ 55″, sup. 1—inf. 90.
(3) 50″.
School Proficiency: 5th grade.
Prognosis: Probably bad.

BLANCHE—*No Home Supervision*

Referred at thirteen years from a vocational class in a Junior High School because of defiance, bad influence in classroom, took girls out of school to meet men.

Blanche is socially and physically mature for a girl of thirteen years. She hates school and resents having been sent to "this H . . . hole"—the disciplinary class in which she now is. Her one idea is to leave school when she is fourteen and get a job. Last summer she worked in a restaurant and earned ten dollars a week, and met "awful swell" people. Frequently at night she dances in competition with other girls at the different movie theatres and while she has won no prizes, she has made many "boy friends."

The mother is a weak, shiftless, indifferent woman who does not care what the children do, nor what time they come in at night, so long as they do not bother her. In the morning, Blanche gets the breakfast for her brothers and sisters and gets them off to school, while the mother sleeps. School holds nothing for Blanche. She is constantly interrupting classroom activities, and uses most profane and obscene language when asked to keep still. In an interview with the mother, she declared that all Blanche's badness came from the father's side of the house; if she had known as much before she married him as she does now, she'd be better off. He had served a long sentence in jail.

Blanche's I.Q. is 85, probably sufficient to carry her through socially as she is most attractive,—violet blue eyes and lovely fair hair.

C.A. 13–8; M.A. 11–7; I.Q. 85.
Memory Span: Auditory 5, sup. 1—inf. 50.
10 year F: Visual 7, sup. 30—inf. 20.
Reverse 4, sup. 20—inf. 10.
Formboard: (1) 20″; (2) 16″.

Healy A: (1) 39″; (2) 6″; (3) 5″.
Dearborn: (1) 3′ 27″, sup. 50—inf. 40.
(2) 1′ 6″, sup. 80—inf. 10.
(3) 47″.
School Proficiency: Junior Vocational Class 8th grade.
Prognosis: Doubtful.

JOAN—*"The Child of Flame"*

Referred, at eight years, for non-conformity—corrupts children in regular class.

Because of very bad home conditions, Joan had been removed from her home and placed, by the court, with foster parents who were much too old for the responsibility of an eight year old child. They were good, religious souls. The foster father was much more understanding and lenient with Joan's misdemeanors than the mother who was a woman of much moral rectitude but extremely jealous of Joan's fondness for the old man. Every act of Joan's was misinterpreted. She could not sit on her foster father's lap; she could not greet with affection any male member of the household, for the minister of the church had said she was "a child of flame and would need much watching."

She was supposed to have had improper contacts with older men and boys and to have exposed herself in the class room. Even animals were said not to have escaped. She had been placed under hospital care and given the purging influence of frequent prayer meetings and attendance at Sunday School, but both seemed to have failed.

She was an irritating little soul in the classroom. She did wrong not maliciously but because she was extremely restless and energetic and had an overweening desire for approbation. She could not run off her energy in the usual way since games and sports were forbidden her as "unladylike." Every morning she could be seen walking demurely to school holding the mother's hand. Every afternoon she went home gaily skipping along with her old man several paces behind. Movies, educational or otherwise, were forbidden her—they were sinful. Joan belonged to the "terrible meek" and when questioned as to why she did not go out to play with other little children, she stood humbly before you and narrated a long list of offenses, always adding, "My mother says I'm a show-off."

She was a wiry, elfin-like creature with such a funny little old

face, absolutely devoid of any feeling so far as we could tell. When her mother deemed it advisable to send her away to some younger friend of hers for a while, she packed her up bag and baggage and moved to another city without regrets or anticipation. In this other city, the report comes back, that she is still "showing off."

C.A. 8–3; M.A. 8–3; I.Q. 100.
Memory Span: Auditory 5, sup. 1—inf. 50.
10 year F: Visual 4, inf. 100.
Reverse 3, inf. 70.
Formboard: (1) 35″; (2) 35″; (3) 33″.
Healy A: (1) F; (2) 50″; (3) 10″.
School Proficiency: 2d grade.
Prognosis: Bad.

IONE—*Epilepsy*

Referred for frequent attacks of epilepsy and non-conformed behavior.

In 1925, Ione was removed from a 3d grade class to a class for backward children because of her poor mental ability and non-conformed behavior. Here she started fights with the other children and frequently hurt them. In 1927, her behavior was so much worse that she was referred to a psychiatrist who said that she was developing mild mental symptoms and that her *epilepsy was perhaps secondary to encephalitis,* since, during the epidemic of 1917–1918, she had a period of lethargy. Exclusion from school was recommended.

Ione was very loquacious and sexually precocious. She pursued the boys, jumping on them whenever she met them, and at one time hurt one quite badly.

After an absence from school of several years, Ione's mother asked that she be returned to school. She said that the girl had improved in health very much and also in behavior. Ione's medical record shows that her birth was normal, that she was a "blue" baby, and that her first attack of 'epilepsy' was at fourteen months.

Since her re-admission she has been the cause of many fights on the street and in the classroom. Her language is filthy and her scorn of the teachers is expressed in no mild terms. She is rather an attractive, well-formed child, with black curly hair and piercing eyes. Physically she is very mature; she has "it," and needs much watching in her contacts with the boys. Her school work is showing marked deterioration and is very uneven. She is very malicious

and unforgiving, carrying a grudge for weeks. She and a post-encephalitic case spend their time trying to hurt each other.

She loves excitement and has been known to call in the police for punishment administered by the father. She would feign an attack for any sharp rebuke for her misconduct in school, though she never had a typical seizure since her readmission. The mother has asked for placement because the girl has practically broken up her home life.

C.A. 10–1; M.A. 8–9; I.Q. 86.
Memory Span: Auditory 6, sup. 40—inf. 10.
10 year F: Visual 7, sup. 30—inf. 20.
Reverse 4, sup. 20—inf. 10.
Formboard: (1) 31″; (2) 33″; (3) 21″.
Healy A: (1) F.
Dearborn: Refused to do.
School Proficiency: Poor 3d grade.
Prognosis: Bad.

ALBERT—*Probable Post-Encephalitic*

Referred for biting, scratching, screaming, vile language.

Albert's history is not very favorable. His birth was premature, seven and one-half months. At the age of three months he was operated on for hernia. He did not walk until three years of age, though his mother said he talked at one year. Albert does not dress himself although he is eight years of age. He was always a sickly child, always extremely nervous and given to violent temper tantrums, especially at night. He cannot get on at all with other children, either at home or at school. Children seem to excite him greatly.

At three years of age he had pneumonia; at four years, whooping-cough; at five years, chicken pox; and at six years, measles. He is a very unattractive looking child, with an awkward gait showing a slight limp. He hangs his head most of the time and, if you succeed in getting him to look you in the eyes, there is a silly embarrassed expression on his face.

He was in a class for backward children in 1928 when exclusion was requested on a basis of "menacing behavior." He was excluded for about a year when an appeal was made for his readmission. A social agency took the boy under its care and reported, after investigation, a bad home situation, marital infelicity, much poverty and the stress of a large family. The mother's atti-

tude was very antagonistic to Albert. She beat him unmercifully, then the father beat the mother, and so the story runs.

Albert, since his re-admission to a new school, is behaving much better. It is difficult to keep him in a classroom, any attempt to do so ends in a violent outburst of profane and obscene language. He has had but one temper tantrum, when he bit two people and kicked two others. Since then he has been endeavoring to please for which everyone gives him much praise. He is taken for observation once a week to the hospital and to the social agency interested. His mother's attitude in the whole matter is that she is a Christian woman and that the devil in the boy must be conquered —therefore the vicious punishment.

During the psychological examination Albert was docile, although he twitched and squirmed all the time.

C.A. 8–0; M.A. 7–3; I.Q. 90.

Memory Span: Auditory 5, sup. 30—inf. 30.

6 year M: Visual 6, sup. 80—inf. 1.

Reverse 2, sup. 40—inf. 30.

Formboard: (1) 35″; (2) 38″; (3) 26″.

Healy A: (1) 150″; (2) 13″; (3) 11″.

Dearborn: F.

School Proficiency: Not 1A.

The examination reports his abilities as extremely below average with a very limited vocabularly—2880—inferior. His mechanical ability is fair. He made several wooden soldiers in the shop and was quite pleased with them, this being practically the first time he had handled tools.

Diagnosis of post-encephalitis is still disputed.

Prognosis: Bad.

ISOLDE—*Psychopathic—Deaf*

Referred, at eight years of age, because of deafness.

Isolde's mother was in a very highly nervous state at the time she was born. During her stay in the hospital, Isolde contracted a skin disease; at six months, she rolled her head from side to side just as she does now, so the mother declared. At eighteen months, her gums were gathered and had to be lanced; at one year she was struck on the head by a piece of cement, which the mother feels may be the cause of the deafness. At three years of age, twice within the same year, Isolde underwent tonsillectomy; at five years, one of the hospitals referred her for placement.

Isolde was an attractive, brown skinned little girl with piercing light blue eyes, and was beautifully groomed. She was totally deaf and had no speech. She dragged her feet and bent her knees as she walked. Apparently she depended on her sense of smell for everything, to locate her friends and to determine whether or not she liked the food offered to her. She picks constantly at her own clothing and that of others; any effort to check her is met with howls and screams. At home she had her own way, or she bumped her head against the wall or threw herself to the floor, screaming and crying.

When the radio tones were harsh, she screamed and stamped her feet; when they were soft, she sat down near the radio and remained there for a long time quite content. Isolde made candy, mixed the batter for cake and sewed along a straight line, ironed small pieces and set the table. Frequently she held a mirror in front of her mouth and tried to imitate those about her when they talked. When no sound came forth she became furious, hurled the mirror to the floor, stamped her feet, and beat herself on the head with her hands. Her behavior patterns in school were identical with those at home; an attempt to make her do what she did not want to do, or to check her in any of her actions met with howls and screams. Exclusion from school was finally requested because teacher and children were worn out with her temper tantrums. At times she was as mild as a May morn, but these times were too occasional.

Her clinical examination showed some trainability, since she reduced the time on the Witmer Formboard from 81″ on the first trial to 45″ on the third. She was so distractible that no other performances could be observed. She was finally excluded from school, after a trial of six months, as of "limited mentality and psychopathic behavior."

HENRY—*Feelings of Inferiority*

Referred for truancy, bad attitude, and refusal to work.

Henry's face always presented a scowl, but then Henry had no real home, no mother who was willing to claim him. He had been boarded around from place to place and indifferently fed and cared for. Finally he was placed in a home by the court, with other children whose mothers came to see them at least once a week. Henry's mother never came, but the children were always willing to share their candy, oranges and other good things with Henry.

Pride made him refuse. A temper tantrum, followed by a whipping, finished the Sabbath for Henry.

Is it any wonder that he hated the world and all herein? He hated school; he hated the teachers and he would not work. His fervent wish was that he might die. Not being able to do that Henry consoled himself with a bad gang that taught him to steal chickens 'n' things. Once more the court took Henry in hand and he was placed in a new home and sent to a disciplinary class. Here his temper tantrums were many and violent. He fought everybody and everything. In time, Henry learned that none of these things was of any avail and that nobody minded.

He was defiant and surly; somebody was always pickin' on him —"I don't want to. I ain't a goin' to" met almost every request. One day, an argument arose as to whether one of the children in his class would sit down. One of the braggarts remarked, "Not even my mammy could make me sit down if I didn't want to." Henry was aloof, reading a book in the corner of the room—suddenly a growling, "Y-e-a-h?" issued forth, "That's you mammy you talkin' about, but when Miss —— says 'sit down,' you squats!"

Slowly but surely he is gaining some self-control and is frequently pointed to as the model of the class. All of Henry's responses are very slow,—no coaxing, no praising or scolding can speed him up. In his own time and in his own way he arrives, and you wait. He is learning to conceal his feelings about his mother.

C.A. 9–1; M.A. 8–0; I.Q. 88.
Memory Span: Auditory 6, sup. 40—inf. 10.
10 year M: Visual 7, sup. 30—inf. 20.
Reverse 3, sup. 1—inf. 70.
Formboard: (1) 26″; (2) 31″; (3) 19″.
Healy A: (1) 11″; (2) 10″; (3) 11″.
Dearborn: (1) 4′ 48″, sup. 20—inf. 70.
(2) 2′ 53″, sup. 20—inf. 70.
(3) 2′ 43″.
School Proficiency: Good 5th grade.
Prognosis: Fair, if psychopathic tendency can be met properly.

EUGENE—*Racial Antagonism*

Referred for impudence, defiance, disturbing influence in class, truancy.

Eugene was placed in a Sight-Saving Class for "corneal opacity," which resulted in poor vision. His behavior was very

bad. When the teacher placed him in the front of the room where he could see the board, he refused to take the place, remarking, "I like it better here." Any rebuke from the teacher brought forth the response, "You wouldn't say that to a white child. You think 'cause I'm colored," etc. Explanations from the teacher elicited a long drawn out "Y-e-a-h?" His behavior became so bad that he was placed in a disciplinary class. He made no effort to learn anything and deliberately destroyed glasses provided for him. He walked in and out of the classroom at his leisure, stole food and money. The family was uncooperative, perhaps, but they frankly admitted that they did not know what to do with him. He frequently stayed out all night and refused to tell of his whereabouts, remarking, "What I do out of school is my business."

Though he was a dirty boy, he had much personality and a very winsome smile. His heroic midnight prowls held the children spellbound. On one occasion, he had the colored and white groups thoroughly aligned against each other, because the teacher had dared to rebuke a colored child for some minor offense. He has been in five different schools and the report is always the same. His intellectual level is as low as his I.Q. would indicate.

C.A. 14–3; M.A. 8–9; I.Q. 61.
Memory Span: Auditory 5, inf. 90.
15 year M: Visual 6, sup. 1—inf. 90.
Reverse 3.
Formboard: (1) 34″; (2) 37″; (3) 32″.
Healy A: (1) 3′ 5″; (2) 10″; (3) 10″.
Dearborn: (1) 5′, sup. 10—inf. 80.
(2) 5′, sup. 1—inf. 90.
(3) 2′ 5″.
School Proficiency: Scarce that of 2d grade.
Prognosis: Bad.

RALPH—*Emotional Conflict*

Referred, at nine years, because of incorrigibility—struck teacher in the face.

Ralph is a behavior problem at home and at school. His parents are religious fanatics and would not permit the boy to enter into any kind of sports. Their constant request was that the boy spend much time in meditation and prayer. The near neighbors and the parents held seances with him, sang and prayed and worked themselves into a frenzy, urging the devil to come out of him.

Ralph was a born tramp and non-conformist, his one idea being to live in the open and to get away from people. People were dumb anyhow, he said, they never understood anything. He hopped trucks and trains, and went off on expeditions of his own. In the classroom he was simply impossible, refusing to do anything the teacher asked; "Try 'n make me" being the usual response. He shot rubber bands around the room, distributed sneezing powder to boys in class, ran out of school taking other boys with him. He was the leader of a gang of unsavory character. One of his favorite haunts was the slaughter-house, where he reveled in the misery of the animals. All the animals were cowards except the lambs; "they acted like they thought, 'What's the use?' "

He had much executive ability and could carry on the office procedure as intelligently and efficiently as any in charge. He reacted very violently to girls and was reported to have indulged in perverted sex activities, and was subject to maniacal outbursts. He was employed after school, but was so erratic in his behavior that he was fired. He hated the "guy that thought up school" and wished that he might live out in the open.

When he was sixteen, he joined the Army and is now living on the plains of Wyoming where "The cow boys is got the movies skinned a mile!"

C.A. 11–5; M.A. 12–5; I.Q. 109.
Memory Span: Auditory 5, sup. 1—inf. 50.
10 year M: Visual 7, sup. 30—inf. 20.
Reverse 3, sup. 1—inf. 70.
Formboard: (1) 26″; (2) 16″; (3) 10″.
Healy A: (1) 16″; (2) 12″.
Dearborn: Refused to do.
School Proficiency: About 5th grade.
Prognosis: Good.

MICHAEL—*Personality* (*motivation*)

Referred at thirteen years for truancy, defiance and incorrigibility.

Michael's family was a very dirty, untidy, illiterate foreign one. The parents have not made or cared to make any adjustments to the new country. Only the children spoke English and constantly took advantage of their parents because of that superiority. There was no home control and Michael and his brother went to school or not as

suited their pleasure. They stole chickens on the railroad, fruit from the merchants, and whatever else they could get their hands on. Bored by school and seeking adventure, Michael ran away to Florida—stolen food cared for his needs, and the weather was favorable. He was finally picked up by the authorities, returned home, and sent to a reformatory. When released, he was sixteen. Several of his friends were prize-fighters, so he became one, and was most successful. He was, however, not satisfied with this,—he had higher ambitions. "Join the Navy and See the World" became his slogan and about a year later, he returned to the school and asked to be coached to take an examination for the Navy which would happen in a year's time. The job was undertaken with many misgivings. After much exertion on the part of teacher and boy, he passed. This success goaded him on to other efforts. Everybody became interested. Michael's personality had developed amazingly; he was gracious, clean, happy and willing. Now he has won for himself a non-commissioned officer's place in the Navy. This is quite amazing in view of the fact that his I.Q. is only 81. His psychological examination conceded him a Borderline Mentality.

C.A. 13–0; M.A. 10–6; I.Q. 81.
Memory Span: Auditory 5, sup. 1—inf. 50.
10 year M: Visual 5, inf. 90.
Reverse 3, sup. 1—inf. 70.
Formboard: (1) 28″; (2) 35″; (3) 25″.
Healy A: (1) Failure in 5′; (2) Taught. 19″.
Dearborn: (1) F, inf. 90.
School Proficiency: Inferior 3d grade.
Prognosis: Good.

EVE—*Emotional Conflicts*

Referred, at fifteen years, to a disciplinary class, from a fourth grade, because of defiance, impudence, and temper tantrums.

Eve lived in a dirty, squalid little house entirely too small for its eleven occupants. She and two sisters had to occupy the one bed, and, as she expressed it, "That ain't so hot." The seventy-one year old father was a scapegrace, and the mother was an ignorant, worn-out soul who had raised, quite unsuccessfully, twenty-two children.

Eve and her sister, at the tender ages of six and seven, were kidnapped and badly abused. Since that time, Eve was always afraid of people, and especially men, whom she hated. She was

very excitable and childish in her responses. Frequently there was quite a dissociation between the past and the present, after which time she was nervous and unmanageable. She had been under treatment for a thyroid condition for several years, but it had been discontinued for some time. Nobody cared.

Eve had no interest in school work and was simply biding her time until she was sixteen. Whenever the classroom work was just a little bit beyond her ken, she became silly and giggly, and quite stubborn. She would do household work of any kind just so long as the tasks assigned her were quite explicit.

C.A. 15–1; M.A. 9–5; I.Q. 62.
Memory Span: Auditory 5, inf. 99.
15 year F: Visual 6, inf. 90.
Reverse 3.
Formboard: (1) 25″; (2) 12″; (3) 13″.
Healy A: (1) 7″; (2) 5″.
Dearborn: (1) 4′ 15″, sup. 30—inf. 60.
(2) 1′ 20″, sup. 60—inf. 30.
(3) 3′ 20″.
School Proficiency: Will probably never finish sixth grade.
Prognosis: Bad—unless under constant supervision.

MARION—*A Defense*

Marion was referred, at ten years of age, for bus transportation, because she could not walk to school. She was a dainty wee mite of a girl, with violet blue eyes, an exquisite skin and soft brown hair. She did her school work very well and was the center of attention. Everyone who met her said, "What a darling child!", and Marion responded with an appreciative smile. Everything ran on smoothly for several years. Marion was promoted from class to class. There was much praise and admiration from the teachers and much satisfaction on the part of the child.

She suffered from infantile paralysis of one leg, and had a clubfoot.

At thirteen, an operation was deemed advisable, and in less than a year, another operation. Results were not so satisfactory. The physical pain and the disappointment were too much for her. She was no longer sweet and docile; she was petulant and supercilious. Her attention turned itself upon boys; love epistles were written to them; obscene notes were passed to girls; stories most alluring

about "Prince Charming's" goodness to her,—his generous boxes of candy, gorgeous bunches of flowers, dances, theatre, were all enthralling to her simple minded listeners. Lessons began to lose interest. What was the approval of her teacher to the recognition of her friends? She began to paint and powder her delicate skin; her lipstick changed the mouth to a rose bud of vivid hue. The more the teacher disapproved, the more she put it on, and the greater acclaim from her group. The mother's attitude was that anything Marion wanted to do was all right with her and that the teachers were all a bunch of old maids, anyhow.

Impudence and defiance became the order of the day. She walked out of the classroom when she wished and brooked no questions as to "why" or "where." During a psychological examination, she gave as a reason for her conduct that she loved to make fools of people. "When I get a job," she said, "I will overlook many things because I will be getting paid to"—"now the teachers will have to."

Her tests showed that she worked well at her age level and that her intellectual ability was sufficient to earn her living were it not for her serious physical handicap.

C.A. 15–10; M.A. 14–3½; I.Q. 90.
Memory Span: Auditory 6, sup. 1—inf. 70.
15 year F: Visual 7, sup. 1—inf. 70.
Reverse 4.
Formboard: (1) 44″; (2) 19″.
Healy A: (1) 14″; (2) 13″; (3) 7″.
Dearborn: (1) 4′ 35″, sup. 20—inf. 70.
(2) 2′ 42″, sup. 20—inf. 70.
(3) 1′ 49″.
Prognosis: Fair.

Conclusions

1. Problem Children are both Disciplinary and Backward, both types are non-intellectual and are not mutually exclusive.

2. Both backward and disciplinary groups show considerable school retardation; this retardation is due to mental defect retardation, emotional attitudes, disinterest, inadequate effort and environmental factors.

3. The mentally retarded may be and often are socially normal; "socially normal" is dependent upon a social criterion; some of the mentally normal are not "socially normal"; I.Q. is but one factor in a social judgment.

4. Instruction must be kept simple, practical, concrete, at the level of intelligence to be taught and preparatory for life.

5. Boys showed a greater range of intellectual ability than the girls as measured by the various tests.

6. The adolescent age is the period of greatest maladjustment in school.

BIBLIOGRAPHY

1. ADDAMS, JANE. The spirit of youth and the city streets. New York, Macmillan, 1909.
2. BALDWIN, BIRD T. Physical growth and school progress. Bulletin, Bureau of Education, No. 10, 1914.
3. BOLITHO, WILLIAM. The psychosis of the gang. *Survey*, 1930, 63, 500–506.
4. CRAMPTON, C. WARD. Physiological age—a fundamental principle. *Amer. Phys. Educ. Rev.*, 1908, 13.
5. EASBY-GRAVE, CHARLOTTE. Tests and norms at the six year old performance level. *Psychol. Clinic.* 1924, 15, 261–300.
6. HUMPSTONE, HENRY J. Some aspects of the memory span test. Philadelphia, The Psychological Clinic Press. 1917.
7. JONES, ALICE M. An analytic study of 120 superior children. *Psychol. Clinic*, 1925, 16, 19–76.
8. LEAMING, REBECCA. Tests and norms for vocational guidance at the fifteen year old performance level. *Psychol. Clinic*, 1922, 14, 193–220.
9. MURPHY, MILES. The ten year level of competency. *Psychol. Clinic*, 1928, 17, 33–58.
10. MEAD, MARGARET. Coming of age in Samoa. New York, Morrow, 1928.
11. PEARSON, GERALD. What the adolescent girl needs in her home. *Ment. Hyg.*, 1930, 14, 40–53.
12. TERMAN, LEWIS M. The measurement of intelligence. New York, Houghton Mifflin, 1916.
13. WICKMAN, E. K. Children's behavior and teachers' attitudes. New York, Commonwealth Fund Publications, 1928.
14. WITMER, LIGHTNER. Psychological diagnosis and the psychonomic orientation of modern science. *Psychol. Clinic*, 1925, 16, 1–18.

LANCASTER PRESS, INC.
LANCASTER, PA.